

REMARKS

Claims 1-2, 5, 7-8, 10-11, 14-16, 18-29, 32-34, 36, 45-47 and 52 are pending. Claims 1, 14-16, 24, 28, 33 and 45-47 have been amended herein. No new matter has been added.

Applicant acknowledges the Examiner's acknowledgement that Claim 16 is drawn to patentable subject matter, and would be allowable if re-written to incorporate those elements from the claims from which it depends.

Applicant responds to each of the Action's rejections in the order in which they are presented in the Action.

I. German Patent No. DE 100 17 438 (Katz), does not render obvious the subject matter of Claims 1, 2, 5, 7-8, 10, 11, 18-29, 32-34, 36, 38, and 45-52 when read in view of U.S. Patent No. 6,413,499 to Clay; or US Patent no. 6,017,963 to Alfonso; or in view of Clay or Alfonso further in view of US Patent No. 2,497,762 to Davis.

Pending claims 1, 2, 5, 7-8, 10, 11, 18-29, 32-34, 36, 38, and 45-52 have been rejected under 35 U.S.C. §103(a) in light of the teachings of Katz in view of Clay. Claims 1, 2, 5, 7, 8, 10, 11, 18-29, 32-34, 36, 38 and 45-52 were rejected as obvious over Katz in view of Alfonso. Claims 12-15 were rejected as obvious over Katz, in view of Alfonso or Clay in further view of Davis. Applicant respectfully traverses these rejection, as detailed below.

There is no credible reason to combine Katz with Davis, the reasons provided by the Office are not supported by the disclosure in Davis, and in any event the combination

of Katz and Clay/Alfonso with Davis does not result in a dispenser as claimed in claim 1. Thus, the claims are inventive over this combination of documents too.

Claim 1 is the sole independent claim. As explained below, the subject matter of Claim 1 is both novel and inventive, and therefore the following discussion with respect to the Katz and Clay focuses upon claim 1, without prejudice to the independent groups of patentability of the claims dependent thereon. Claims depending from Claim 1 are patentable by virtue of their dependency. Applicant reserves the right to argue for the independent patentability of the other claims, if the need arises.

In the Office Action, the Examiner maintained a rejection to claim 1 et al based on Katz. In particular, the Examiner posits that the recited claims are obvious, since claim 1 is only distinguished from Katz by virtue of its requirement that the outlet orifice is a spray-head shaped and sized for insertion into a user's nostril (i.e. the claimed dispenser is an intra-nasal dispenser), and it would have been routine modification to incorporate such a feature from Clay.

Without acquiescing to the position of the Examiner, Applicant has amended claim 1 to further require that the intra-nasal dispenser:

...has a valve mechanism which maintains the outlet orifice in a closed state;

wherein the valve mechanism has an opening pressure threshold to move the outlet orifice to an open state to permit a metered volume of the fluid product to be dispensed through the outlet orifice; and

wherein the dispensing mechanism is adapted such that the opening pressure threshold is only met when the plunger structure head moves forwardly from its second to third positions relative to the second wall member.

These amendments have basis from prior claims 12 and 48.

Katz contains no disclosure, explicit or implicit, on the opening pressure threshold of the outlet valve ((13), (27) or (35)). In other words, there is no clear and unambiguous description of when, in the forward stroke of the plunger ((3), (31)) in the pumping chamber (7), the outlet valve ((13), (27) or (35)) opens.

Moreover, Katz does not disclose that the follow-on piston (23) at the bottom of the container (2) moves rearwardly as the plunger ((3) or (31)) moves forwardly in the pumping chamber (7), nor is it inevitable that this be the case.

Consequently, there is no disclosure in Katz that its dispensing mechanism is adapted such that the outlet valve ((13), (27) or (35)) only opens when the plunger (2) moves forwardly in the pumping chamber (7) once the pumping chamber is isolated from the container (i.e., in the continued forward movement of the plunger ((3) or (31)) once the plunger's forward movement is sufficient to close the channel (22) between the container and the pumping chamber.

In fact, it is reasonable to infer from the absence of any disclosure of rearward movement of the container follow-on piston (23) that no rearward movement occurs in the forward movement of the plunger (2). This indicates that the outlet valve (13/27/35) opens immediately in response to the forward stroke of the plunger from its rearward, rest position shown in the Figures, as this is the only way in which the pumping pressure imposed on the cream can be accommodated.

As a result of this analysis, Katz does not disclose the requirement in claim 1 for the valve mechanism with an opening pressure threshold which is only met when the plunger structure moves forwardly from its second to third positions. In addition, there is nothing in Katz to suggest that such a feature would be useful therein.

Accordingly, the claims are both novel and inventive over Katz when considered alone. Neither Clay nor Alfonso have been indicated by the examiner to disclose this

feature. As such, the claims are also novel, non-obvious and therefore patentable over Katz when considered in light of Clay or Alfonso.

Nor does Davis remedy the deficiencies of Katz, Clay and Alfonso. As an initial matter, applicants respectfully assert that there would be no motivation to combine Katz with Davis. The Office has provided no credible reason on why the person of ordinary skill in the art would be motivated to modify the cream dispenser in Katz with the disclosure in Davis, other than because Katz and Davis both concern piston pump dispensers, the skilled person would wish to combine them. This is too simplistic, as it results in the flawed situation that the skilled person would combine any disclosures concerning piston pump dispensers. The relevance of Davis to Katz needs to be considered in context. The Office ignores the objective of Katz to create a cream dispenser in which the expenditure for parts, assembly and production is kept to a minimum (see first three paragraphs of Katz). Adopting the configuration disclosed in Davis into the cream dispenser of Katz would be counter-productive to this primary objective of Katz. Thus, as a preliminary matter, not only is no clear foundation for the combination of Katz and Davis provided by the Office, but this asserted combination would conflict with the stated objective for the cream dispenser of Katz.

Moreover, the lever mechanism in Davis which the Office purports would be routinely incorporated into the cream dispenser of Katz would have no place in a cream dispenser. Bearing in mind that Davis concerns a grease gun of the lever type, the problem to be solved by the Davis lever mechanism is set forth in Davis at column 2, lines 21-49:

“When in any instance the operator finds it particularly difficult to operate the lever through its feeding stroke, as when a bearing or a passage leading thereto is clogged or plugged with dry grease and dirt, then by pulling lengthwise on the lever he can.....” (Emphasis added)

There is nothing in Katz which indicates that a corresponding clogging/plugging problem exists in cream dispensers of the type to which Katz relates. Accordingly, there

is no motivation to incorporate the lever mechanism into Katz, since there is no evidence that a corresponding problem needs to be solved in Katz.

Additionally, the Office has not considered, nor justified the combination in light of, the old age of Davis (published 1950). While the old age of Davis by itself is not conclusive of non-obviousness of claim 1, it does provide further support in favour of non-obviousness. In particular, considering the number of other piston pump dispenser disclosures that would have occurred between Davis and the priority date of the claimed invention, in particularly the more contemporaneous disclosures between publication of Katz and the priority date, it is not credible that the skilled person would select Davis from the ocean of more recent disclosures as the vehicle for modifying the cream dispenser in Katz (if any modification were deemed necessary or desirable).

Even further, the actual technical rationale of the Office for making the combination of Katz and Davis is flawed. The Office' justification is that, in relation to piston pump dispensers, Davis:

“...teaches these types of dispensers can have a low volume position as in figure 3 or a high volume position as in figure 4 wherein the dispenser can be adjusted from the high volume to the low volume position without dispensing fluid as claimed for the purpose of using the dispenser to dispense two different volumes of fluid.”

The dispenser (grease gun) of Davis has a lever mechanism which can be shifted between two different configurations, a normal, low pressure configuration (Fig. 4; see e.g. col. 2, lines 42-49 and col. 3, lines 15-19) and a temporary, high pressure configuration (Fig. 3; see e.g. col. 2, lines 21-39). The different configurations of the lever mechanism provide different pressure strokes for the plunger 20, not different dispensed volumes as suggested by the Office. There is no mention in Davis of a “low volume position” or of dispensing different volumes of fluid.

In fact, Davis at column 3, lines 20-49 would support the position that the Examiner rationale is flawed in this instance. This passage makes clear that after use of the lever 30 in the high-pressure configuration, in the return filling stroke of the plunger 20, the lever 30 automatically returns to its low-pressure configuration as the plunger 20 moves to its fully retracted position shown in Figure 4. If another high-pressure plunger stroke is needed, then the user shifts the lever mechanism back to its high-pressure configuration shown in Figure 3 (col. 3, lines 44-49). Thus, the starting point of the plunger for its dispensing stroke is the same whether or not a high-pressure or low-pressure stroke is needed. Consequently, Davis does not disclose a dispenser which, when used as taught, provides two different volumes.

Finally, even if Davis were combined with Katz, despite the contra-indications set out above, there is still no disclosure in Davis of the feature discussed above not disclosed in Katz. Specifically, Davis does not disclose that the opening pressure threshold of the check valve 26 is only met when the plunger 20 is stroking forwardly once it has closed the port 22 to the reservoir 10. As there is no disclosure in Davis that the follower piston 54 at the base of the reservoir does anything other than move towards the port 22 to move grease through the port 22, it is reasonable to infer that when the plunger 20 moves forwardly from its fully retracted position of Figure 4, the check valve 26 opens to accommodate the pumping pressure before the plunger 20 closes the port 22.

In light of the above, applicant's respectfully assert that Katz does not render obvious the subject matter of Claims 1, 2, 5, 7-8, 10, 11, 18-29, 32-34, 36, 38, and 45-52 when read in view of Clay; or Alfonso; or in view of Clay or Alfonso further in view of US Patent No. 2,497,762 to Davis. Applicant's respectfully request withdrawal of each of the rejections made.

II. Conclusion

All claim rejections being addressed in full, Applicant respectfully requests the withdrawal of the outstanding objections and rejections and the issuance of a Notice of Allowance. Should the Examiner have any questions regarding the foregoing, Applicant respectfully requests that the Examiner contact the undersigned, who can be reached at (919) 483-9995.

Respectfully submitted,

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